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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/689,708	08/16/96	WEIBLER	W 1120

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EXAMINER

FLANIGAN, A

ART UNIT PAPER NUMBER

3743

DATE MAILED: 04/30/98

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**08/689,708**

Applicant(s)  
**Weibler**

Examiner  
**Allen J. Flanigan**

Group Art Unit  
**3743**



☒ Responsive to communication(s) filed on Mar 9, 1998

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-24 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-24 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☒ The proposed drawing correction, filed on Mar 11, 1998 is ☒ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Specifically, there is no support or explanation for the phrase “separately constructed” that has been added to independent claims 1 and 12.

Claims 1-13 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term “separately constructed” is not found nor explained in the specification, and it is unclear what this term is supposed to mean; the claimed device is supposed to be “separately constructed”, but separate from what? From other cores? How far “separated” are they supposed to be?

Claims 1-5 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenblad '833, particularly in view of Davison et al.

Please see the comments made in regard to the above rejection in the previous Office action. The “separately constructed” language added to the claims as discussed above is ambiguous, and the recitation “leak tested” adds nothing structurally to the claims. A core which leaks will leak whether it has been tested or not, and a core which has no leaks will have no leaks regardless of whether its integrity has been

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actively ascertained by testing. Performing a leak test does not alter the claimed structure in any way, and process limitations (pertaining to the intended method of making or using a product) cannot impart patentability to an otherwise unpatentable structure. Finally, newly added claim 20 merely recites a feature clearly taught in Davison et al.

Claims 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenblad '833, particularly in view of Davison et al. as applied to claims 1-5 above, and further in view of Des Champs.

Please see the comments made in regard to the above rejection in the previous Office action.

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Hulswitt et al., Davison et al., Des Champs, and Peze et al.

Please see the comments made in regard to the above rejection in the previous Office action. Peze et al. has been added to the rejection because of the amendment to claim 12, now reciting that the flat, abutting terminal sections are "welded". Peze et al. clearly shows that it is known to provide such flat surfaces at joined edges to ensure adequate contact area for a reliable welded joint (see Fig. 11, for example).

Claims 14-19 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davison et al. in view of Peze et al.

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Please see the comments made in regard to the above rejection in the previous Office action. Regarding the "edge spacers" of claims 22 and 24, note the spacers 44 utilized in Davison et al.

Applicant's arguments filed 3/9/98 have been fully considered but they are not persuasive.

The Examiner took official notice in the previous Office action regarding the notoriety in the art of testing assembled components for leaks or other indicators of performance, and the applicant has not traversed this assertion. It is therefore taken to be admitted prior art; *In re Chevenard*, 60 U.S.P.Q. 239. Moreover, testing of each and every component at every step of assembly would be prohibitively expensive for mass-produced products. Industrial engineers and designers typically focus on assembly techniques that produce reliable products economically and with a minimum of rejects, rather than compensating for less than ideal assembly techniques by testing each assembled unit and fixing those which fail the tests. It is usually much more preferable from both a cost and productivity standpoint to design an assembly process that reliably produces less than, say, 2% rejects than to settle for an assembly line that produces 5% or more rejects and try and detect and fix at least 3% of them. If a particular application calls for absolute reliability, i.e. no rejects, such as critical applications for NASA projects, then testing each unit prior to shipping would of course be obvious to one of ordinary skill in the art. Applicant presumably believes that his

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assembly process involving welding the core plates prior to placing or attaching the frame plates makes it possible to test for leaks and fix any discovered without having to remove the frame plates as would be necessary with an exchanger assembled according to Davison et al.'s method, but unfortunately Peze et al. teach the same assembly technique of welding the core without using the frame plates to compress the stack for welding, and this technique will inherently provide the same advantages in terms of reducing the disassembly steps necessary if a flaw or leak in the core must be repaired. Regarding the pressure resistance of the core during pressure testing absent any reinforcement from side plates, it would be obvious to one skilled in the art that if the core were to be subjected to pressures likely to distort the thin core plates, it would have to be braced by some temporary means, such as the bracing plates shown in Fig. 6 of Peze et al. which are bolted in place rather than welded.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date

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of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry regarding this or a previous communication from the Examiner should be directed to **Allen J. Flanigan** at telephone number **(703) 308-1015**. The Examiner can normally be reached Monday through Friday from 9:30AM until 6:00PM. Documents may be **faxed** to the Examiner's attention at **(703) 308-7765**.

**A. FLANIGAN**

4/29/98

  
ALLEN J. FLANIGAN  
PRIMARY EXAMINER  
GROUP 340